

Site: Shiloh Church Road Site

Task: Excavation

Date: 9/9/19

Predicted Predominant Wind Direction: NE

Predicted Maximum Wind Speed: 6 mph



Ludlum 3030 Serial Number:	187982	Cal Due Date:	2/19/2020
Th-230 4π efficiency:	0.3244	Tc-99 4π efficiency:	0.3155
Pu-239 4π efficiency:	0.3996	C-14 4π efficiency:	0.0679
Am-241 4π efficiency:	0.3452	Sr-90 4π efficiency:	0.4264

Notes: AC-5 assigned to Excavation Team.

Radionuclide Air Sampling
Daily Summary
Shiloh Church Road Site
Halifax County, Virginia

Date: 9/9/19

Predicted Predominant Wind Direction: NE

Public Results

Effluent Limits	Alpha (Ra-226)	9.00E-13	Beta (Pb-210)	6.00E-13
Air Sampler Location	% Of Effluent Concentration Limit	Alpha Result	% Of Effluent Concentration Limit	Beta Result

Worker Results

Derived Air Concentrations	Alpha (Ra-226)	3.00E-10	Beta (Pb-210)	1.00E-10
Tasks Monitored	% Of DAC	Alpha Result	% of DAC	Beta Result
AC-5 - Excavation Team	<0.08%	1.69E-13	<8.16%	1.72E-12

Comments:

Task: Excavation

Dry Cal Serial: 132112

Cal Due Date: 7/11/20

Dry Cal Serial: 132112					Cal Due Date: 7/11/20					α isotope of concern				Ra-226		β isotope of concern				Pb-210	
Pre Flow Rate (LPM)		4.665								Post Flow Rate (LPM)						4.848					
Start Date/Time		9/9/19 8:45								Stop Date/Time						9/9/19 17:10					
										Total Liters						2278.5					
Analysis Date/Time		Hours After Collection	Bkg count time (min)		Sample count time (min)		α bkg (counts)	gross α (counts)	net α (cpm)	α MDA (μCi/mL)		α (μCi/mL)		β bkg (counts)	gross β (counts)		net β (cpm)	β MDA (μCi/mL)		β (μCi/mL)	
9/10/19 12:00		18.8	120		90		84	88	0.28	2.54E-13		1.69E-13		4393	3348		0.59	8.16E-12		1.72E-12	
Final Result		Hours After Collection	Bkg count time (min)		Sample count time (min)		α bkg (counts)	gross α (counts)	net α (cpm)	α MDA (μCi/mL)		α (μCi/mL)		β bkg (counts)	gross β (counts)		net β (cpm)	β MDA (μCi/mL)		β (μCi/mL)	
9/10/19 12:00		18.8	120		90		84	88	0.28	2.54E-13		1.69E-13		4393	3348		0.59	8.16E-12		1.72E-12	
										% DAC:		<0.08%						% DAC:		<8.16%	

Notes: Assigned to Excavation Team.